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NEWS 3 JUL 20 Powerful new interactive analysis and visualization software,  
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NEWS 5 AUG 30 CA/CAPlus -Increased access to 19th century research documents  
NEWS 6 AUG 30 CASREACT - Enhanced with displayable reaction conditions  
NEWS 7 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY  
NEWS 8 OCT 03 MATHDI removed from STN  
NEWS 9 OCT 04 CA/CAPlus-Canadian Intellectual Property Office (CIPO) added  
to core patent offices  
NEWS 10 OCT 06 STN AnaVist workshops to be held in North America  
NEWS 11 OCT 13 New CAS Information Use Policies Effective October 17, 2005  
  
NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 18:34:18 ON 14 OCT 2005

=> file ca, biosis,medline

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FULL ESTIMATED COST

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ENTRY	SESSION
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FILE 'CA' ENTERED AT 18:36:52 ON 14 OCT 2005

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FILE 'BIOSIS' ENTERED AT 18:36:52 ON 14 OCT 2005

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FILE 'MEDLINE' ENTERED AT 18:36:52 ON 14 OCT 2005

=> s (betaine hcl) or (betaine hydrochloric acid)  
L1 242 (BETAINE HCL) OR (BETAINE HYDROCHLORIC ACID)

=> s pepsin  
L2 41097 PEPSIN

=> s l1 and l2  
L3 13 L1 AND L2

=> d 1-13 ab,bib

L3 ANSWER 1 OF 13 CA COPYRIGHT 2005 ACS on STN

AB The present invention provides a stabilized protonic formulation comprised primarily of proteins, enzymes and pH adjusters, all in specific ratios to one another, a liquid medium which, when combined to the protonic formulation, initiates activation of the amino acids within the protonic formulation, and a stabilizing component which stabilizes the amino acids during the process of their activation. The optimum ratio of enzyme activator formulation to protein mixture is about 1:25, though 1 part enzyme activator formulation to 10 to 30 parts protein mixture will function suitably for the intended purpose. The enzyme activator formulation is optimally comprised of: **betaine-HCl** 4.0%, **pepsin** 1.5%, trypsin 0.4%, chymotrypsin 0.3%, protease 0.4%, bromelain 0.5%, papaya 0.6%, vitamin C 5.0%, lemon powder 0.6%, glutamic acid 0.2%, and glycine 86.4%. The protein sources and mixture that works best with the enzyme activator formulation includes: whey protein isolate 30.0%, instant whey concentrate 15.0%, soy protein isolate 25.0%, pea protein 5.0%, rice protein 5.0%, maltodextrin 15.7%, steviolide 0.3%, french vanilla flavor 1.75%, peach mango flavor 0.5%, xanthan gum 0.5%, lecithin 0.5%, and tricalcium phosphate 0.75%. Clin. tests and studies have shown that, with use of the protonic mixture, about 30 to 40% more amino acids are utilized than when the protonic mixture is not used.

AN 143:114482 CA

TI Protein formulation comprising enzymes and pH adjusters for improved bioavailability of amino acids

IN Ernest, Michael

PA Doctor's Signature Sales and Marketing International Corp., USA

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005152887	A1	20050714	US 2004-757706	20040114
PRAI	US 2004-757706		20040114		

L3 ANSWER 2 OF 13 CA COPYRIGHT 2005 ACS on STN

AB A complex enzyme composition that improves growth and feed digestion by animals comprises pancreatin 200, **betaine-HCl** 50, monobasic calcium phosphate 100,  $\alpha$ -amylase 150,  $\beta$ -amylase 100, lipase 50, **pepsin** 100, and cellulase 100 mg.

AN 142:218044 CA

TI Complex enzyme composition containing pancreatin, **betaine-HCl**, and calcium phosphate as feed additive

IN Han, In Kyu

PA S. Korea

SO Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DT Patent

LA Korean

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2002041162	A	20020601	KR 2000-70943	20001127
PRAI	KR 2000-70943		20001127		

L3 ANSWER 3 OF 13 CA COPYRIGHT 2005 ACS on STN

AB A composition containing betaine hydrochloride and **pepsin** as powders, pancreatin,  $\alpha$ -amylase,  $\beta$ -amylase, lipase, cellulase, dibasic calcium phosphate as an enzyme complex, Lactobacillus acidophilus, Bifidobacteria longum, fructooligosaccharide or the like as a probiotics complex, a vitamin complex and a mineral complex is provided which inhibits proliferation of intestinal harmful microorganisms and enhances immunoactivity. The composition contains 78 mg **betaine HCl**, 50 mg **pepsin**, 15 mg pancreatin, 11 mg  $\alpha$ -amylase, 8 mg  $\beta$ -amylase, 4 mg lipase, 7.5 mg cellulase, 7.5 mg dibasic calcium phosphate, 1.25 billion Lactobacillus acidophilus, Lactobacillus bulgaricus, etc. 900 million Bifidobacteria longum and Bifidobacterium breve, 180 million Streptococcus thermophilus, 375 mg fructooligosaccharide, 450 IU vitamin A, 675 IU  $\beta$ -carotene, 56 mg vitamin C, 23 IU vitamin D, 23 IU vitamin E, 7.5  $\mu$ g vitamin K, 3.8 mg thiamine, 3.4 mg riboflavin, 5.6 mg niacin, 3.4 mg pyridoxine, 11  $\mu$ g cobalamin, 28  $\mu$ g biotin, 8.4 mg pantothenic acid, 8.4 mg choline, 28.1 mg Ca, 18.8 mg P, 0.9 mg Fe, 12  $\mu$ g I, 17 mg Mg, 1.7 mg Zn, 11  $\mu$ g Se, 0.1 mg sulfuric acid, 0.6 mg Mn, 11  $\mu$ g chromium picolinate, 0.6 mg Mo, 0.6 mg K, 0.3 mg betaine, 0.2 mg B, 3.8 mg L-lysine 2.0 mg phenylalanine, 2.0 mg L-tyrosine, a trace amount of kelp powder and 4.7 mg polyunsatd. fatty acid.

AN 142:204717 CA

TI Nutrients containing betaine, enzymes, Lactobacillus, Bifidobacteria, fructooligosaccharides, vitamins and minerals

IN Han, In Kyu; Kim, Yu Yong

PA S. Korea

SO Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DT Patent

LA Korean

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2003025587	A	20030329	KR 2001-58713	20010921
PRAI	KR 2001-58713		20010921		

L3 ANSWER 4 OF 13 CA COPYRIGHT 2005 ACS on STN

AB A protonic formulation is provided comprising a protein mixture and a mix. of enzymes and pH adjusters selected for proper activation, pH adjustment, and attainment of pK for the amino acids and optimization of bioavailability of the amino acids. The optimum ratio of enzyme activator formulation to protein mixture is about 1:25, though 1 part enzyme activator formulation to 10-30 parts protein mixture will function suitably for the intended purpose. The enzyme activator formulation is optimally comprised of: **betaine-HCl** 4.0%, **pepsin** 1.5%, trypsin 0.4%, chymotrypsin 0.3%, protease 0.4%, bromelain 0.5%, papaya 0.6%, vitamin C 5.0%, lemon powder 0.6%, glutamic acid 0.2%, and glycine 86.4%. The protein sources and mixture that works best with the enzyme activator formulation includes: whey protein isolate 30.0%, instant whey concentrate 15.0%, soy protein isolate 25.0%, pea protein 5.0%, rice protein 5.0%, maltodextrin 15.7%, steviolide 0.3%, french vanilla flavor 1.75%, peach mango flavor 0.5%, xanthan gum 0.5%, lecithin 0.5%, and tricalcium phosphate 0.75%. Clin. tests have shown that, with use of the protonic mixture, about 30-40% more amino acids are utilized than when the protonic mixture is not used.

AN 138:169167 CA

TI Protein formulation with enzymes and pH adjusters for improved bioavailability of amino acids

IN Ernest, Michael

PA Life Force International, USA

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003014304	A2	20030220	WO 2002-US24662	20020802

WO 2003014304 A3 20030501

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,  
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-311280P P 20010809

L3 ANSWER 5 OF 13 CA COPYRIGHT 2005 ACS on STN

AB An herbal formulation useful as a food supplement for re-establishing  
intestinal bacteria and rebuilding intestinal mucosa comprises 25-35%  
**betaine HCl**, 2-7% plant enzymes, 1-4% papain, 0.5-5%  
probiotic micro flora, 2-7% fructooligosaccharides, 5-15% L-glutamine,  
2-7% quercitin, 2-7% butyric acid, 5-15% borage seed, 5-15% flax seed,  
5-10% lecithin, and 5-15% of a mixture containing  $\gamma$ -oryzanol, bromelain,  
**pepsin**, and N-acetylglucosamine. The formulation may be mixed  
together, compressed and formed into a capsule for oral administration.

AN 137:129879 CA

TI Herbal formulation containing enzymes for rebuilding intestinal bacteria

IN Terry, Travis L.; Watson, Tommy Stanley; Watson, Brenda F.

PA Renew Life, Inc., USA

SO U.S., 3 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6426099	B1	20020730	US 1998-204036	19981201
PRAI US	1997-67271P	P	19971203		

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 13 CA COPYRIGHT 2005 ACS on STN

AB The therapeutic efficacy of dexamethasone and a natural pig surfactant  
preparation was investigated in a rabbit aspiration model. Lung injury was  
induced by intratracheal administration of 2 mL of a **betaine-  
HCl-pepsin** mixture/kg. Dexamethasone was given i.v. in  
two doses (D1 = 7.5 mg/kg; D2 = 3.75 mg/kg; D2 6 h post D1). In different  
groups D1 was injected at different times before and after aspiration.  
Natural surfactant was administered 24 h post lung injury in a single dose  
of 12 mg phospholipids/kg. The therapeutic potential was evaluated by  
measuring static lung compliance and the difference in a lung volume between  
0 and 20 mm Hg airway pressure. No therapeutic effect of dexamethasone  
was seen at any time of application. In contrast, the intratracheal  
administration of natural surfactant 24 h post injury completely reversed  
the deterioration of lung mech. properties.

AN 119:86523 CA

TI Experimental aspiration trauma: Comparison of steroid treatment versus  
exogenous natural surfactant

AU Strohmaier, W.; Schlag, G.

CS Ludwig Boltzmann Inst. Exp. Clin. Traumatol., Vienna, Austria

SO Experimental Lung Research (1993), 19(3), 397-405

CODEN: EXLRDA; ISSN: 0190-2148

DT Journal

LA English

L3 ANSWER 7 OF 13 CA COPYRIGHT 2005 ACS on STN

AB Pharmaceuticals for treatment of digestive tract disorders in domestic  
animals contain **betaine-HCl** 10-30, antacid  
carbohydrate digestive enzymes 1-10, antacid cellulose-degrading enzymes  
1-10, antacid protein digestive enzymes 20-40, and saccharification  
bacteria spore powder 10-30% by weight Thus, a pharmaceutical was prepared by

mixing **betaine-HCl** 200, carbohydrate digestive enzyme 50, a cellulose degrading enzyme 50, sugar-containing **pepsin** 300, saccharification bacterial spore powder 200, lactose 100 parts by weight, and potato starch q.s.

AN 112:62655 CA  
TI Pharmaceuticals for treatment of digestive tract disorders of domestic animals  
IN Masuda, Takashi  
PA Toa Yakuhin Kogyo K: K., Japan  
SO Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01132533	A2	19890525	JP 1987-289628	19871118
PRAI	JP 1987-289628		19871118		

L3 ANSWER 8 OF 13 CA COPYRIGHT 2005 ACS on STN

AB The characteristic enzymic activity, using the gastrointestinal model, of the acid-resistant digestive enzyme which had been added to the preparation containing **betaine-HCl** was determined and compared with those of folk digestive enzyme prepsns. The deviation of the wts. of those prepsns. was also investigated. The present preparation shows its digestive activity in the acid range and act in the stomach. The digestive activity using the shaking methods and the separated methods, i.e. amylase, protease and lipase did not fulfill the standard activity of the digestive enzyme prepsns. The digestion using the gastrointestinal model was about the same as that of the digestive enzyme prepsns. fulfilling the criteria and, especially in the gastric model, it was same or more than that. The prepsns. in which more than 2 types of granules, had been mixed fulfilled the requirements of the weight variation in the Japanese Pharmacopoeis, but the mixture ratio of those was variable.

AN 109:176308 CA  
TI The characteristic digestive activity of the preparation containing betaine hydrochloride  
AU Murakami, Tadayasu; Kawashima, Mikio; Sasaki, Masanori; Kobayashi, Shinichi; Yamada, Fusayo; Asahina, Kikuo  
CS Res. Lab., Toa Pharm. Co., Ltd., Tatebayashi, 374, Japan  
SO Yakuri to Chiryo (1973-2000) (1988), 16(2), 771-8  
CODEN: YACHDS; ISSN: 0386-3603  
DT Journal  
LA Japanese

L3 ANSWER 9 OF 13 CA COPYRIGHT 2005 ACS on STN

AB Oval compns. for decreasing the symptoms of digestive dysfunction contain a pancreatic enzyme extract, a protolytic enzyme from plants, a choleretic agent, a HCl source and **pepsin** [9001-75-6]. Bromelain [9001-00-7] and pancreatin [8049-47-6] were adsorbed onto digestible sucrose-starch beads which were coated with white lac glaze. These beads were then coated with stearic acid and carnauba wax. A mixture of ox bile extract, **pepsin**, **betaine-HCl** [590-46-5] and guar gum was blended with H<sub>2</sub>O to give a dough which was screened, dried, and the resultant granules ground and dry-screened to the mesh. The granules were mixed with the coated beads and blended with hydrogenated vegetable oil, microcryst. cellulose, and Mg stearate. The mixture was punched into tablets and coated with a zein solution

AN 101:28325 CA  
TI Enzyme-containing digestive aid compositions  
IN Bilton, Gerald L.  
PA USA  
SO U.S., 4 pp.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 4447412	A	19840508	US 1983-462995	19830201
	WO 8503438	A1	19850815	WO 1984-US159	19840203
	W: JP				
	RW: AT, BE, CH, DE, FR, GB, LU, NL, SE				
	EP 172166	A1	19860226	EP 1984-901130	19840203
	R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE				
	CA 1213543	A1	19861104	CA 1984-447208	19840210
PRAI	US 1983-462995		19830201		
	WO 1984-US159	A	19840203		

L3 ANSWER 10 OF 13 CA COPYRIGHT 2005 ACS on STN  
 AB A review with refs. of **betaine-HCl** [590-46-5], glutamic acid-HCl [138-15-8], diluted HCl, and **pepsin** [9001-75-6] as ingredients in over-the-counter (OTC) drug products for use as stomach acidifiers. Based upon the lack of adequate data to establish the effectiveness of these or any other ingredients of stomach acidifiers used in treating achlorhydria and hypochlorhydria, and because such conditions are asymptomatic and not amenable to self-diagnosis, any OTC drug product containing ingredients offered for use as stomach acidifiers cannot be considered generally recognized as safe and effective.

AN 92:47160 CA  
 TI Stomach acidifier drug products for over-the-counter human use; proposed rulemaking  
 CS Food and Drug Administration, Rockville, MD, 20857, USA  
 SO Federal Register (1979), 44(204), 60316-20, 19 Oct 1979  
 CODEN: FEREAC; ISSN: 0097-6326  
 DT Journal; General Review  
 LA English

L3 ANSWER 11 OF 13 CA COPYRIGHT 2005 ACS on STN  
 AB A combination of 455 mg. **betaine-HCl** and 60 mg. **pepsin** (1:10,000 U.S.P. unit), having the mixed powder particles coated with 141 mg. methylcellulose, is placed in capsules. The mixture is useful as a gradual producer of HCl in patients with achlorhydria or hypochlorhydria. Glutamic acid-HCl can replace the **betaine-HCl**.

AN 51:83316 CA  
 OREF 51:15073b-c  
 TI Preparation containing betaine hydrochloride for treatment of achlorhydria and hypochlorhydria  
 IN Sahyun, Melville  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2798837		19570709	US	

L3 ANSWER 12 OF 13 CA COPYRIGHT 2005 ACS on STN  
 AB Betaine unites with HCl loosely to form a compound which readily breaks up into its components in aqueous solution. Because of this property the substance forms a convenient medium for the administration of HCl. **Betaine-HCl** contains 23.8% of HCl. Acidol is a proprietary name for the substance and its mixts. with **pepsin** are called "acidol-pepsin." **Betaine-HCl** is a white, crystalline, odorless substance of an acid reaction and taste. About 10 yrs. ago the acid contents of acidol and of acidol-pepsin were determined. The amts. found were substantially as claimed. The acid was determined by titration with N KOH, using phenolphthalein as indicator, and by precipitation with AgNO3 and weighing as AgCl. Recently new specimens of each product were examined. The old products were reexamd. and the results compared. The acidity and the proteolytic activity of the new specimens were essentially as claimed. The acidity of the old specimens had not changed much in 10 yrs., but the proteolytic activity had disappeared.

AN 14:18796 CA  
 OREF 14:3501b-d  
 TI Acidol and acidol-pepsin

AU Anon.  
SO Rep. Lab. Am. Med. Assoc. (1919), 12, 91-3  
DT Journal  
LA Unavailable

L3 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
AB An herbal formulation comprises **betaine HCl**, plant  
enzymes, papain, probiotic micro flora, fruitooligosaccharides,  
l-glutamine, quercitin, butyric acid, borage seed, flax seed, lecithin,  
gamma oryzanol, bromelain, **pepsin**, and N-acetylglucosamine.  
AN 2002:477375 BIOSIS  
DN PREV200200477375  
TI Herbal formulation for rebuilding intestinal bacteria.  
AU Terry, Travis L. [Inventor, Reprint author]; Watson, Tommy Stanley  
[Inventor]; Watson, Brenda F. [Inventor]  
CS Clearwater, FL, USA  
ASSIGNEE: Renew Life, Inc., Clearwater, FL, USA  
PI US 6426099 20020730  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(July 30, 2002) Vol. 1260, No. 5. [http://www.uspto.gov/web/menu/patdata.ht](http://www.uspto.gov/web/menu/patdata.htm)  
ml. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DT Patent  
LA English  
ED Entered STN: 11 Sep 2002  
Last Updated on STN: 11 Sep 2002

=> s whey protein  
L4 9182 WHEY PROTEIN

=> s soy protein  
L5 8269 SOY PROTEIN

=> s l4 and l5  
L6 276 L4 AND L5

=> s l4 (p) l5  
L7 249 L4 (P) L5

=> d his

(FILE 'HOME' ENTERED AT 18:34:18 ON 14 OCT 2005)

FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 18:36:52 ON 14 OCT 2005

L1 242 S (BETAINE HCL) OR (BETAINE HYDROCHLORIC ACID)  
L2 41097 S PEPSIN  
L3 13 S L1 AND L2  
L4 9182 S WHEY PROTEIN  
L5 8269 S SOY PROTEIN  
L6 276 S L4 AND L5  
L7 249 S L4 (P) L5

=> s l1 and l2 and l4 and l5  
L8 2 L1 AND L2 AND L4 AND L5

=> d 1-2 ab,bib

L8 ANSWER 1 OF 2 CA COPYRIGHT 2005 ACS on STN  
AB The present invention provides a stabilized protonic formulation comprised  
primarily of proteins, enzymes and pH adjusters, all in specific ratios to  
one another, a liquid medium which, when combined to the protonic  
formulation, initiates activation of the amino acids within the protonic  
formulation, and a stabilizing component which stabilizes the amino acids  
during the process of their activation. The optimum ratio of enzyme  
activator formulation to protein mixture is about 1:25, though 1 part enzyme  
activator formulation to 10 to 30 parts protein mixture will function

suitably for the intended purpose. The enzyme activator formulation is optimally comprised of: **betaine-HCl** 4.0%, **pepsin** 1.5%, trypsin 0.4%, chymotrypsin 0.3%, protease 0.4%, bromelain 0.5%, papaya 0.6%, vitamin C 5.0%, lemon powder 0.6%, glutamic acid 0.2%, and glycine 86.4%. The protein sources and mixture that works best with the enzyme activator formulation includes: **whey protein** isolate 30.0%, instant whey concentrate 15.0%, **soy protein** isolate 25.0%, pea protein 5.0%, rice protein 5.0%, maltodextrin 15.7%, steviocide 0.3%, french vanilla flavor 1.75%, peach mango flavor 0.5%, xanthan gum 0.5%, lecithin 0.5%, and tricalcium phosphate 0.75%. Clin. tests and studies have shown that, with use of the protonic mixture, about 30 to 40% more amino acids are utilized than when the protonic mixture is not used.

AN 143:114482 CA  
 TI Protein formulation comprising enzymes and pH adjusters for improved bioavailability of amino acids  
 IN Ernest, Michael  
 PA Doctor's Signature Sales and Marketing International Corp., USA  
 SO U.S. Pat. Appl. Publ., 11 pp.  
 CODEN: USXXCO

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005152887	A1	20050714	US 2004-757706	20040114
PRAI	US 2004-757706		20040114		

L8 ANSWER 2 OF 2 CA COPYRIGHT 2005 ACS on STN

AB A protonic formulation is provided comprising a protein mixture and a mix. of enzymes and pH adjusters selected for proper activation, pH adjustment, and attainment of pK for the amino acids and optimization of bioavailability of the amino acids. The optimum ratio of enzyme activator formulation to protein mixture is about 1:25, though 1 part enzyme activator formulation to 10-30 parts protein mixture will function suitably for the intended purpose. The enzyme activator formulation is optimally comprised of: **betaine-HCl** 4.0%, **pepsin** 1.5%, trypsin 0.4%, chymotrypsin 0.3%, protease 0.4%, bromelain 0.5%, papaya 0.6%, vitamin C 5.0%, lemon powder 0.6%, glutamic acid 0.2%, and glycine 86.4%. The protein sources and mixture that works best with the enzyme activator formulation includes: **whey protein** isolate 30.0%, instant whey concentrate 15.0%, **soy protein** isolate 25.0%, pea protein 5.0%, rice protein 5.0%, maltodextrin 15.7%, steviocide 0.3%, french vanilla flavor 1.75%, peach mango flavor 0.5%, xanthan gum 0.5%, lecithin 0.5%, and tricalcium phosphate 0.75%. Clin. tests have shown that, with use of the protonic mixture, about 30-40% more amino acids are utilized than when the protonic mixture is not used.

AN 138:169167 CA  
 TI Protein formulation with enzymes and pH adjusters for improved bioavailability of amino acids  
 IN Ernest, Michael  
 PA Life Force International, USA  
 SO PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003014304	A2	20030220	WO 2002-US24662	20020802
	WO 2003014304	A3	20030501		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,



KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,  
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US' 2001-311280P P 20010809

=> d his

(FILE 'HOME' ENTERED AT 18:34:18 ON 14 OCT 2005)

FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 18:36:52 ON 14 OCT 2005

L1 242 S (BETAINE HCL) OR (BETAINE HYDROCHLORIC ACID)  
L2 41097 S PEPSIN  
L3 13 S L1 AND L2  
L4 9182 S WHEY PROTEIN  
L5 8269 S SOY PROTEIN  
L6 276 S L4 AND L5  
L7 249 S L4 (P) L5  
L8 2 S L1 AND L2 AND L4 AND L5

=> d his

(FILE 'HOME' ENTERED AT 18:34:18 ON 14 OCT 2005)

FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 18:36:52 ON 14 OCT 2005

L1	242 S (BETAINE HCL) OR (BETAINE HYDROCHLORIC ACID)
L2	41097 S PEPSIN
L3	13 S L1 AND L2
L4	9182 S WHEY PROTEIN
L5	8269 S SOY PROTEIN
L6	276 S L4 AND L5
L7	249 S L4 (P) L5
L8	2 S L1 AND L2 AND L4 AND L5
L9	3128 S NERVOUS SYSTEM DISORDERS
L10	0 S L7 AND L9
L11	0 S AUTISM AND L7

=>

## Freeform Search

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<b>Database:</b>	<div style="border: 1px solid black; padding: 2px;">         US Pre-Grant Publication Full-Text Database          US Patents Full-Text Database          US OCR Full-Text Database          EPO Abstracts Database          JPO Abstracts Database          Derwent World Patents Index          IBM Technical Disclosure Bulletins       </div>
<b>Term:</b>	<div style="border: 1px solid black; padding: 2px;">17 and 120</div>
<b>Display:</b>	<div style="border: 1px solid black; padding: 2px;">20</div> Documents in <b>Display Format:</b> <div style="border: 1px solid black; padding: 2px;">-</div> Starting with Number <div style="border: 1px solid black; padding: 2px;">20</div>
<b>Generate:</b> <input type="radio"/> Hit List <input checked="" type="radio"/> Hit Count <input type="radio"/> Side by Side <input type="radio"/> Image	

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Search

Clear

Interrupt

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### Search History

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**DATE:** Friday, October 14, 2005   
 [Printable Copy](#)   
 [Create Case](#)

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
<u>L21</u>	17 and 120	45	<u>L21</u>
<u>L20</u>	probiotic	1982	<u>L20</u>
<u>L19</u>	17 and 115	0	<u>L19</u>
<u>L18</u>	17 and 117	0	<u>L18</u>
<u>L17</u>	autism	2661	<u>L17</u>
<u>L16</u>	L15 and 18	0	<u>L16</u>
<u>L15</u>	nervous system disorder	7489	<u>L15</u>
<u>L14</u>	18 and autism	0	<u>L14</u>
<u>L13</u>	11 and 12 and 15 and 16	1	<u>L13</u>
<u>L12</u>	110 and 19 and 11 and 12	1	<u>L12</u>
<u>L11</u>	19 same 110	126	<u>L11</u>
<u>L10</u>	soy protein isolate	1489	<u>L10</u>
<u>L9</u>	whey protein isolate	538	<u>L9</u>
<u>L8</u>	15 same 16	949	<u>L8</u>
<u>L7</u>	15 and 16	1267	<u>L7</u>
<u>L6</u>	soy protein	6505	<u>L6</u>

<u>L5</u>	whey protein	5285	<u>L5</u>
<u>L4</u>	whey protein isolate	538	<u>L4</u>
<u>L3</u>	l1 and l2	13	<u>L3</u>
<u>L2</u>	pepsin	21063	<u>L2</u>
<u>L1</u>	betaine hcl or betaine hydrochloric acid	78	<u>L1</u>

END OF SEARCH HISTORY